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RubberWorld

The technical service magazine for the rubber industry Volume 201. No. 2 November 1989

Bonding MPR
Adhesion of PET tire cord
Crosslinking system effect on HNBR

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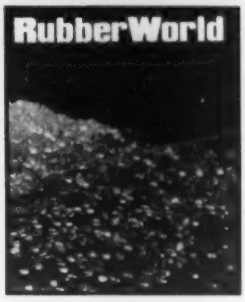

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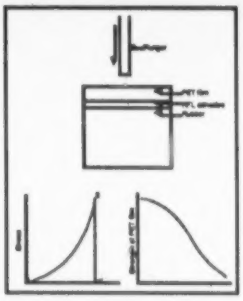

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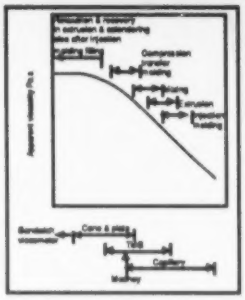

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Cover photo courtesy of Du Pont.

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The Audit Bureau

Editorial

Another crisis is upon us, but this one should be beneficial to many individuals. The October 23 issue of *Chemical & Engineering News* in its special report "1990 employment outlook" warns there is a crisis developing in the supply of scientists and engineers entering the workforce. Quoting the National Science Foundation, the report says that by the year 2006, the U.S. will have a cumulative shortfall of 675,000 people with bachelor's degrees in natural science and engineering. "For the first time since the late 1970s, recruiters report that there seem to be more jobs for new B.S. chemical engineers and Ph.D. chemists than there are qualified candidates to fill them," the report says, indicating that the number of degrees in chemistry awarded last year was the lowest in two decades.

This view was also presented by Randall Caldwell at the recent Rubber Division meeting in Detroit. Caldwell is a recruiter in the polymer industry for A.M.C.R. Inc. in Akron and gave a paper on "Career opportunities in the 1990s." He sees the same problem that *C&E News* wrote about and thinks it's a good news/bad news situation. He charted the growth of salaries in the industry, stating there has been a four- to five-fold increase since 1960, but "you ain't seen nothin' yet." Supply and demand is the reason. "Chemists, engineers, scientists and technicians in our industry will be in short supply. Demand for trained, talented, technical people will far exceed the available supply," he said. So those who weathered recessions, restructurings, LBOs, consolidations and the leaner and meaner storms are now going to be in the catbird's seat. Caldwell sees the chemists and engineers as the driving force for the industry in the coming decade and that their rewards - salaries and bonuses - will advance to most gratifying levels, on par with their accomplishments.

The bad news of this scenario is that the rubber industry is going to be competing with numerous other industries for the good, qualified people presently employed and the future graduates. Caldwell says that the automotive industry is paying technical graduates $2,000 to $4,000 more per year to start, just to make sure they stay around. The *C&E News* report cites bonuses of up to $10,000. It's going to be a seller's market for the qualified. Not especially good news for the companies, but at least the money will be spent on those trying to advance the industry.

Don R. Smith
Editor

RubberWorld

EDITORIAL STAFF

Don R. Smith	editor
Dr. Walter C. Warner	technical editor
Jill Wrigley	managing editor
Julie Wagner	associate editor
Deanne Dodd	composition editor
Jon Menough	contributing technical service editor

BUSINESS STAFF

Job Lippincott	publisher
John W. Peto	v.p. sales
Dennis Kennelly	sales representative
Barbara Gordon	adv. production manager
Sally Dowling	assistant adv. production manager

EDITORIAL OFFICES

P.O. Box 5485
1867 W. Market Street
Akron, Ohio 44313
(216) 864-2122
Telex: 297690 RWMAG UR

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at its wire cloth extruder screen and specialty filter manufacturing operations in Houston, TX. The addition triples plant capacity and includes a new quality control facility, and expanded engineering and product development departments.

Radio Frequency, headquartered in Millis, MA, acquired the dielectric business and assets of **W.T. LaRose & Associates** of Cohoes, NY. The acquired business will be conducted by **LaRose RF Systems**, a new subsidiary of Radio Frequency.

Barnant, Barrington, IL, acquired **Gilmont Ind.**, Great Neck, NY, and made it a wholly-owned subsidiary. Plans are under way to incorporate the complete manufacturing operation into to main Barnant facility in Barrington.

The Simon-Macawber division of the **Simon Group** acquired **Vac-U-Max**, an ndependently owned British company. Vac-U-Max is licensed to sell vacuum pneumatic conveying equipment in the UK, Scandinavia and western Europe.

Goettfert has been established as the North American subsidiary for the German firm of **Goettfert Werkstoff Pruefmaschinen**, manufacturers of high shear rheology testing equipment. The new facility will be located in Rock Hill, SC, with operations starting up January 1.

MANAGER QUALITY ASSURANCE

Day International Company, a wholly owned business unit of M.A. Hanna Company is seeking an experienced Manager, Quality Assurance. Day is a world leader in rubber printing blankets for the printing industry and rubber replacement parts for the textile industry.

This position will be based in Asheville, North Carolina and will be accountable for the Printing Products' quality program at the Asheville facility. Qualified candidates will have a B.S. or B.A. degree in engineering, chemistry or related fields with 5 to 7 years experience in quality assurance at the management level. Prefer individual with CQE certification and strong communication and organizational skills. Strongly prefer experience in rubber and plastics industry or with a company supplying the automotive industry. Experience in designing and installing a quality program a real plus.

We offer excellent benefits, a relocation package, and a salary commensurate with qualifications. Qualified candidates should send resume in confidence along with salary history to:

Director, Human Resources
Day International
P.O. Box 1077
Arden, NC 28704

Equal Opportunity Employer

Contracts, licenses

The **EPIC-Hanna Blending and Compounding Center** was established on the **University of Akron** campus through a $190,000 gift from **M.A. Hanna** that will match capital funds provided by **Edison Polymer Innovation Corp.** (EPIC). The 3,500 sq. ft. facility is available to polymer companies for experiments on plastic and rubber materials, and features a special laboratory for carbon-black compounding. In addition to industry, faculty and graduate students from **Akron** and **Case Western Reserve University**, Cleveland, will use the center's equipment for their research. EPIC will guarantee the center's operating costs for the next three years. Equipment currently available at the facility includes a twin screw extruder, Farrel Banbury mixer, internal mixer, single screw extruder with static mixer, polymer engineering center twin screw extruder and a two-roll mill. The University will offer hands-on training in extrusion and compounding technology to Hanna employees.

Degussa AG, Federal Republic of Germany, and **Dow Deutschland** will work together in the area of polycarbonate. Dow will deliver its polycarbonate granulate to Degussa's production plant in Wolfgang, Hanau, where the raw product will be processed into transparent or colored panels of solid and hollow design. Production start-up is scheduled for the beginning of 1990.

GenCorp Automotive signed a 10-year technical licensing agreement with **Toyo Tire & Rubber** under which GenCorp will produce vibration control products incorpo-

RMA tire report - August
(figures in thousands of units)

Passenger tires	YTD '89	YTD '88	% change
Shipments			
original equipment	35,447	35,363	0.2
radial	30,927	30,131	2.6
replacement	101,607	101,620	-
radial	96,389	94,943	1.5
export	8,616	6,300	36.8
radial	8,030	5,572	44.1
total	145,671	143,283	1.7
radial	135,347	130,646	3.6
Production	120,422	116,442	3.4
radial	112,445	105,838	6.2
Truck & bus tires			
Shipments			
original equipment	5,804	5,879	-1.3
radial	4,818	4,293	12.2
replacement	23,221	22,188	4.7
radial	13,661	12,914	5.8
export	2,384	2,157	10.6
radial	1,760	1,672	5.3
total	31,410	30,223	3.9
radial	20,239	18,879	7.2
Production	26,042	24,300	7.2
radial	17,360	14,877	16.7